

TCM-59V

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



| | |
|------------------------------------|----------|
| Model Name Using Similar Mechanism | NEW |
| Tape Transport Mechanism Type | MT-59-30 |

SPECIFICATIONS

Recording system

2-track 1 channel monaural

Frequency range

150-8,000Hz

Speaker

Twin speakers, approx. 3.6 cm (1 7/16 in.) dia.

Power output

350 mW (at 10% harmonic distortion)

Input

Microphone input jack (minijack) sensitivity 0.21 mV for 3 kilohms or lower impedance microphone

Output

Earphone jack (minijack) for 8-300 ohms earphone

Power requirements

- Two R6 (size AA) batteries (not supplied): 3V DC
- DC IN 3V jack accepts:
- Sony AC-E30HG AC power adaptor (not supplied) suitable in the country where the unit is to be used.
- Sony DCC-E130L car battery cord (not supplied) for use on 12 V car battery.

Dimensions (w/h/d)(incl. projecting parts and controls)

Approx. 88.7 × 113.0 × 37.2mm
(3 1/2 × 4 1/2 × 1 1/2 in.)

Mass(not incl. batteries)

Approx. 220 g (7.8 oz)

Design and specifications are subject to change without notice.

CASSETTE RECORDER
SONY®

SECTION 1 GENERAL

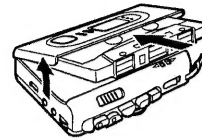
This section is extracted from instruction manual.

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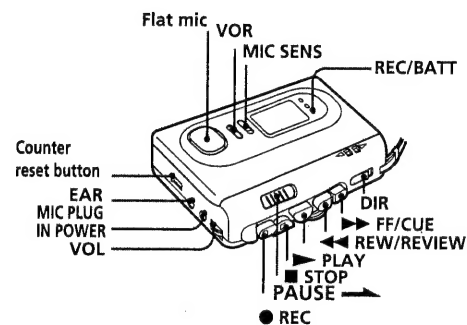
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B

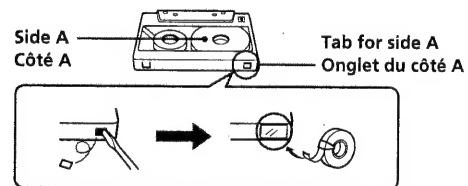
(a)



(b)

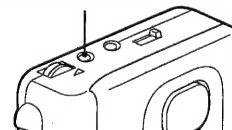


(c)

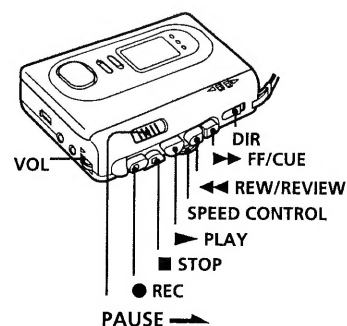


C

MIC PLUG IN POWER



D



Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 2

SERVICE NOTE

In this set, the PH701 (photoreflector) detects rotation of S/T reels. It is mounted on the main board, and therefore the reel rotation cannot be detected with the main board removed.

If it is removed, the auto stop functions. When making an operation check and voltage check of mechanical deck with the main board removed, perform as follows.

How to remove main board (how to open the set)

- 1) Remove two screws.
- 2) Remove the mic flexible board W101.

FF/REW mode

- 1) Apply a square wave signal to hall sensor TP23. (See the following figure.)
- 2) Press the FF or REW switch.
- 3) Turn on the S104 switch.

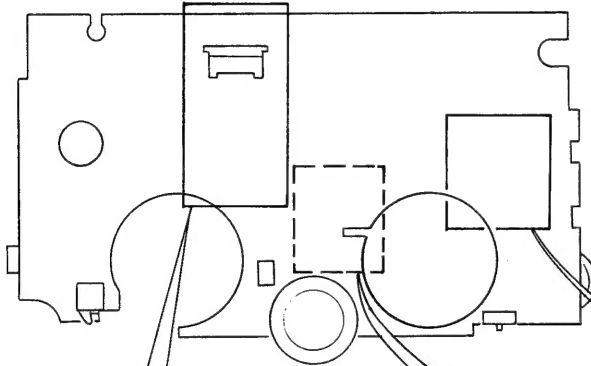
PLAY mode

- 1) Apply a square wave signal to hall sensor TP23. (See the following figure.)
- 2) Press the PLAY switch.
- 3) Change over the S101 to PB.
- 4) Turn on the S104 switch.

REC mode

- 1) Apply a square wave signal to hall sensor TP23. (See the following figure.)
- 2) Press the REC switch.
- 3) Change over the S101 to REC.
- 4) Turn on the S104 switch.

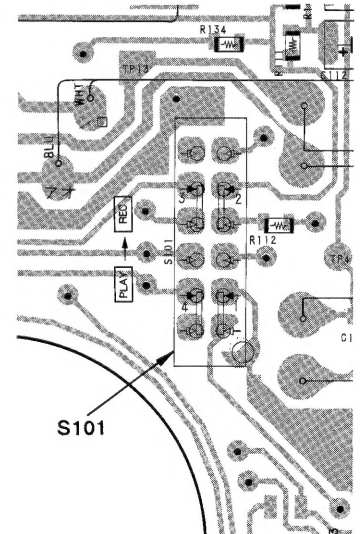
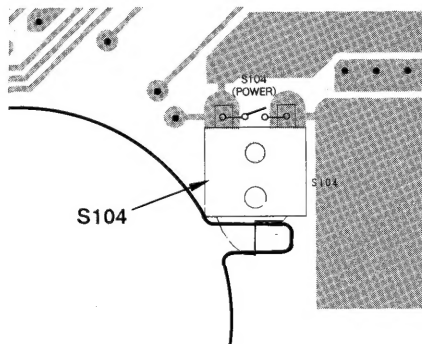
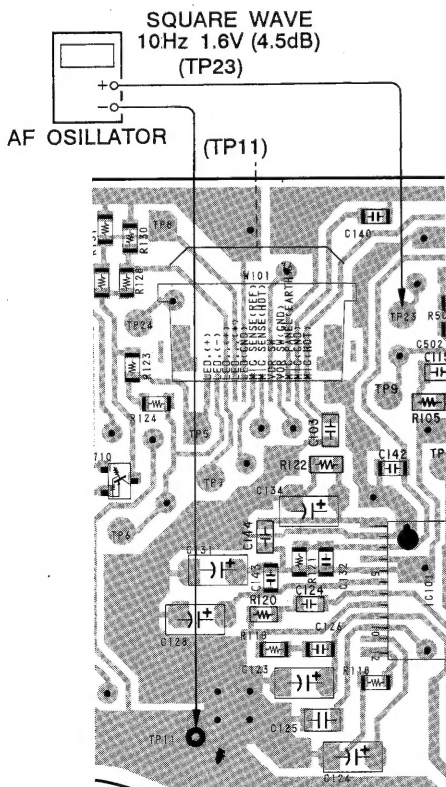
MAIN BOARD (Side A)



(Side A)

(Side B)

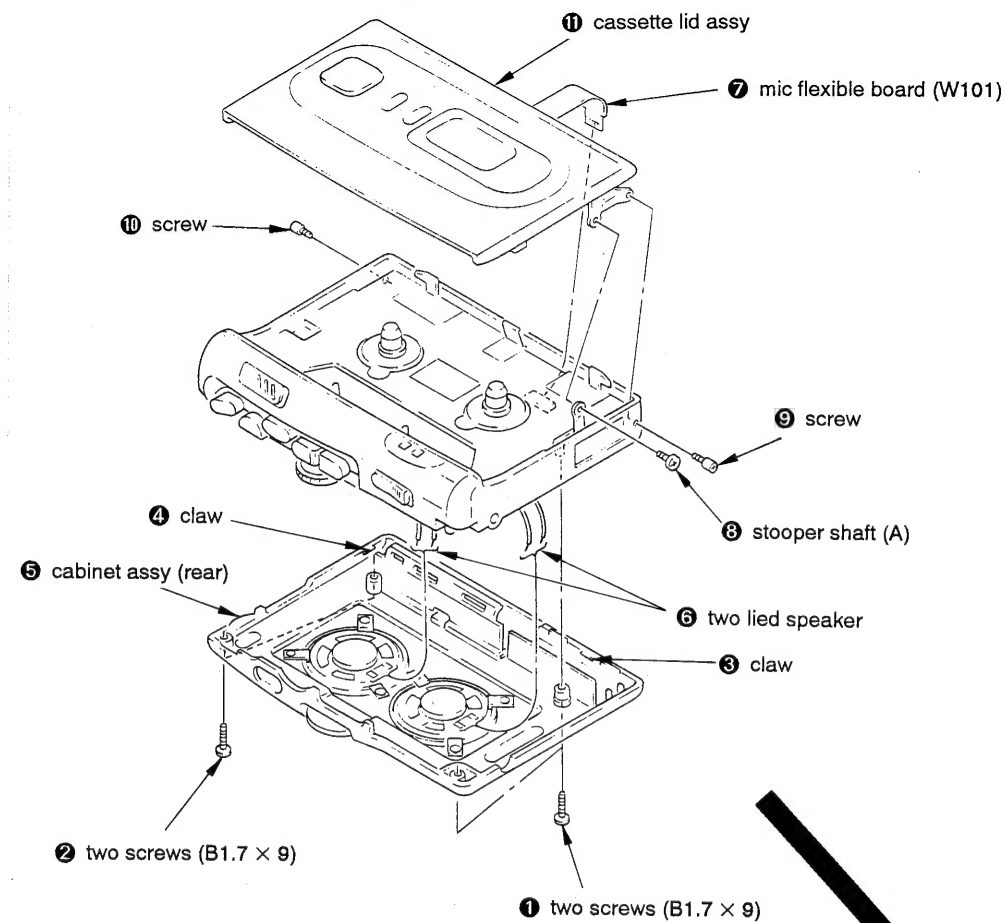
(Side A)



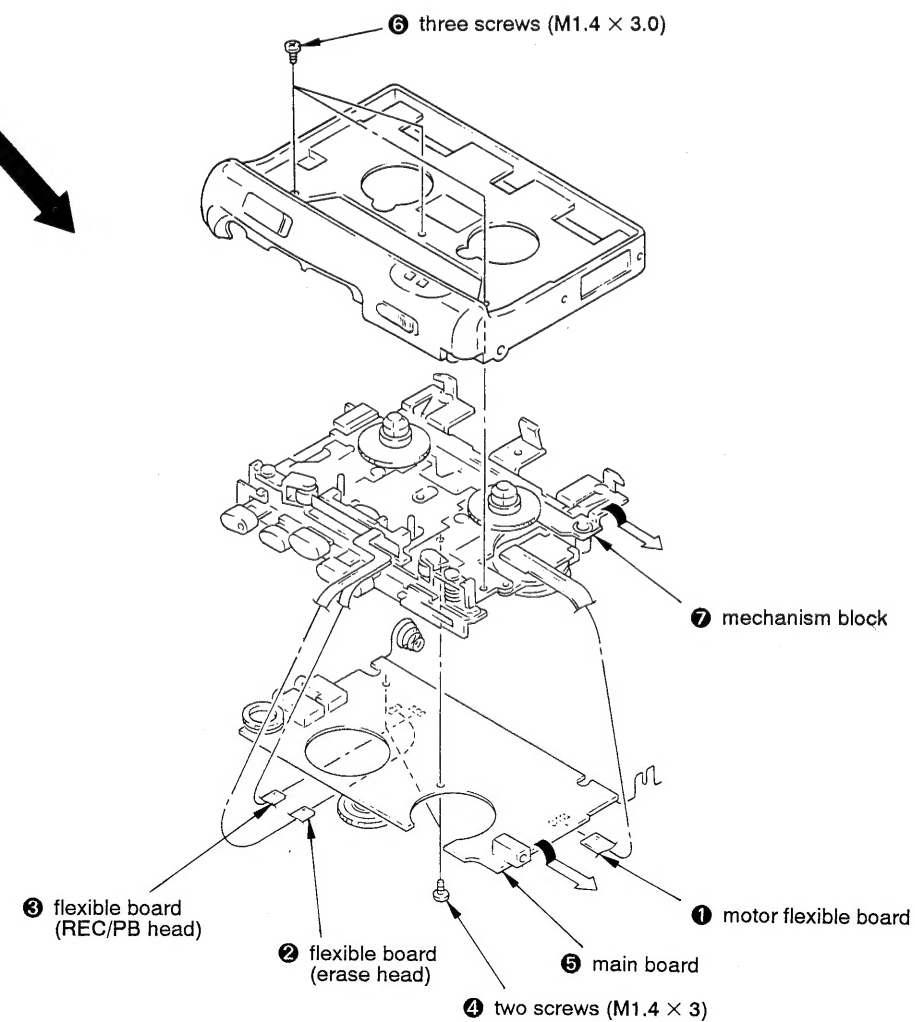
SECTION 3 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

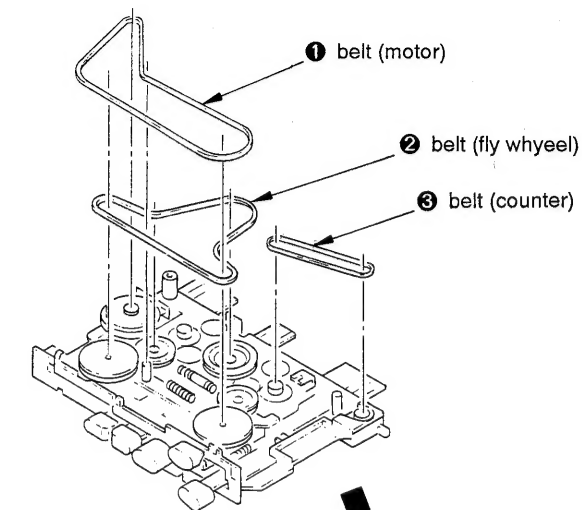
CABINET, LID ASSY CASSETTE



MAIN BOARD, MECHANISM BLOCK

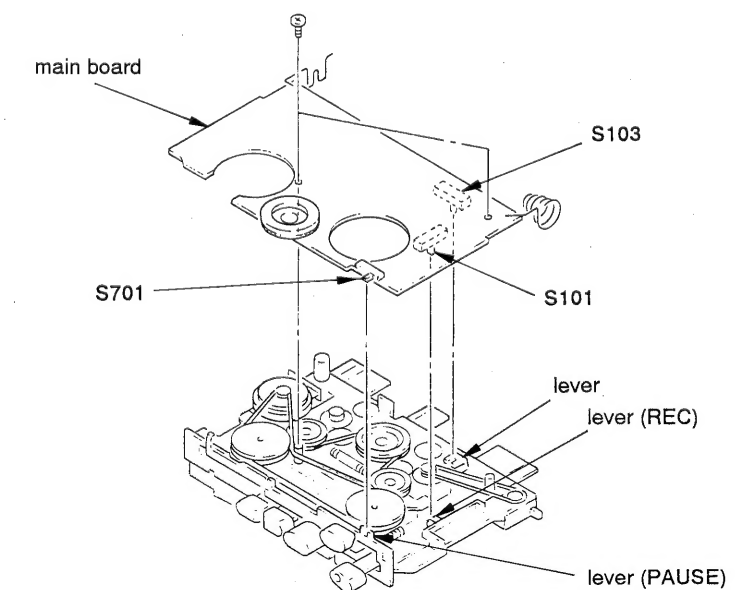


BELT



HOW TO THE MAIN BOARD

Check that switch S101, 103, 701 is latched with lever (REC), lever, lever (PAUSE) when carrying out installation of the main board.



SECTION 4 MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab:
 record/playback head pinch roller
 erase head rubber belts
 capstan idlers
- Demagnetize the record/playback head with a head demagnetizer.
 (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage (3 V) unless otherwise noted.

Torque Measurement

| Mode | Torque Meter | Meter Reading |
|------------------|--------------|---|
| FWD | CQ-102C | 20 – 35 g•cm (0.28 – 0.48 oz•inch) |
| FWD Back Tension | | 0.5 – 5 g•cm (0.007 – 0.069 oz•inch) |
| REV | CQ-102RC | 20 – 35 g•cm (0.28 – 0.48 oz•inch) |
| REV Back Tension | | 0.5 – 5 g•cm (0.007 – 0.069 oz•inch) |
| FF | CQ-201B | more than 40 g•cm (more than 0.56 oz•inch) |
| REW | | |

Tape Tension Measurement

| Mode | Tension Meter | Meter Reading |
|------|---------------|--|
| FWD | CQ-403A | more than 60 g (more than 0.84 oz•inch) |
| REV | CQ-403R | |

SECTION 5 ELECTRICAL ADJUSTMENTS

PRECAUTION

- Perform adjustment under the following condition, unless otherwise specified.
 - Positions of switches and control knobs
 VOLUME knob maximum
 FWD/REV switch FWD
 SPEED CONTROL knob mechanical center
 VOR switch OFF

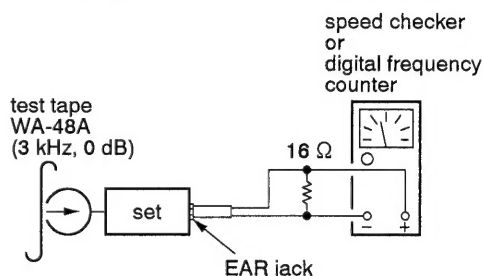
• Test tape

| Type | signal | Used for |
|--------|-------------|-----------------------|
| WS-48A | 3 kHz, 0 dB | tape speed adjustment |

Tape Speed Adjustment

Procedure:

Mode: FWD playback

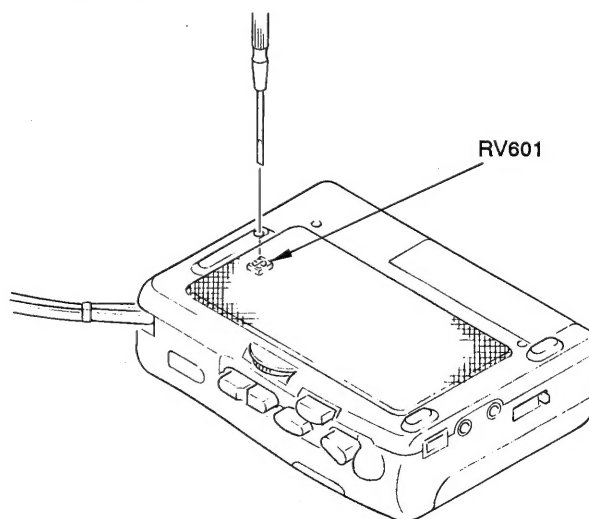


Adjustment Value:

| Speed checker | Digital frequency counter |
|---------------|---------------------------|
| 3,000 Hz | 2,970~3,030 Hz |

Adjust the RV601 so that a difference in frequency at the start of tape winding and at the end of winding is within 1% (30 Hz) respectively. After adjustment, select the REV PLAY mode, and confirm that the characteristics satisfy the standard.

Adjustment Location: MAIN BOARD



SECTION 6
DIAGRAMS

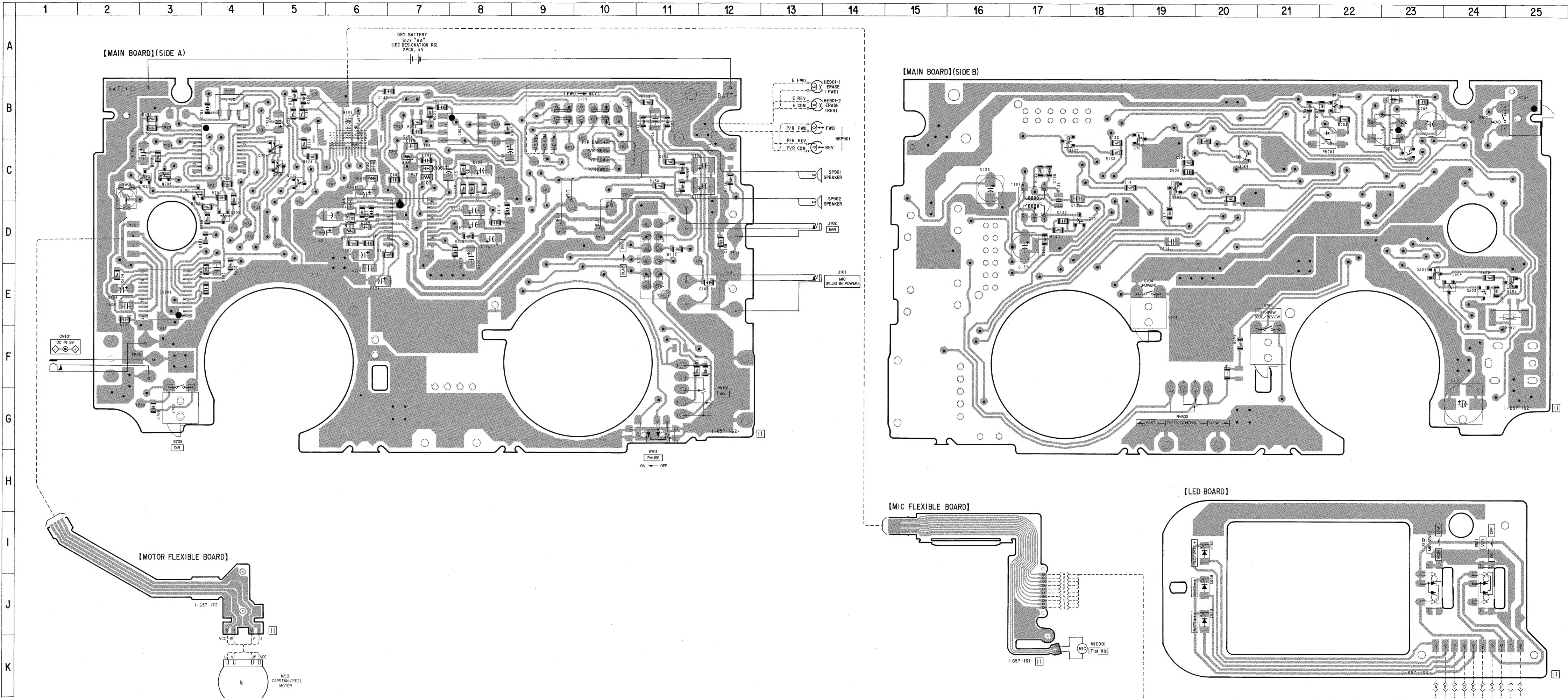
6-1. PRINTED WIRING BOARDS

• Semiconductor
Location

| Ref. No. | Location |
|----------|----------|
| D701 | B-23 |
| D901 | I-20 |
| D902 | J-20 |
| D903 | J-20 |
| IC101 | D-7 |
| IC501 | B-8 |
| IC601 | E-3 |
| IC701 | C-4 |
| IC702 | B-4 |
| Q101 | D-18 |
| Q102 | C-19 |
| Q103 | C-18 |
| Q501 | C-20 |
| Q601 | E-23 |
| Q602 | E-25 |
| Q603 | E-24 |
| Q604 | E-24 |
| Q701 | C-23 |
| Q702 | C-3 |
| Q703 | C-3 |
| Q704 | C-5 |
| Q705 | C-5 |
| Q706 | B-22 |
| Q707 | C-19 |
| Q708 | C-3 |
| Q709 | D-4 |
| Q710 | C-5 |

Note:
• — : parts extracted from the component side.
• • : Through hole.
• : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Caution:
Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Component Side) parts face are indicated.



[illegible]

6-3. IC PIN FUNCTION
MAIN BOARD IC701 TB2004FN-016-ER (System Control)

| Pin No. | Pin Name | I/O | Function |
|---------|----------|-----|--|
| 1 | GND | — | GND |
| 2 | OSC | — | For system clock generation (fosc=3.2 kHz) |
| 3 | CL | I | RESET input |
| 4 | IN-1 | I | Pause ON/OFF by PAUSE SW and VOR "L": ON, "H": OFF |
| 5 | IN-2 | I | FWD reset by cassette cover open-close "L": ON, "H": OFF |
| 6 | IN-3 | I | Direction "L": ON, "H": OFF |
| 7 | IN-4 | I | REC/PB switching "L": REC, "H": PB |
| 8 | IN-5 | I | FF/REW "L": ON, "H": OFF |
| 9 | IN-6 | I | POWER ON/OFF "L": ON, "H": OFF |
| 10 | IN-7 | I | Photoreflector pulse input for tape end detection |
| 11 | IN-8 | I | FWD/REV switching "L": FWD, "H": RFV |
| 12 | I/O-1 | — | Not used |
| 13 | I/O-2 | — | Not used |
| 14 | OUT-8 | — | Not used |
| 15 | OUT-7 | — | Not used |
| 16 | OUT-6 | — | Not used |
| 17 | OUT-5 | O | LED ON/OFF "L": ON, "H": OFF |
| 18 | OUT-4 | O | Audio mute "L": ON, "H": OFF |
| 19 | OUT-3 | O | Motor breake "L": ON, "H": OFF |
| 20 | OUT-2 | O | Motor direction "L": FWD, "H": REV |
| 21 | OUT-1 | O | Motor ON/OFF "L": ON, "H": OFF |
| 22 | VDD | — | Power supply for CMOS |
| 23 | CONT | O | Boosting circuit control output |
| 24 | VCC | — | Power supply for bipolar |

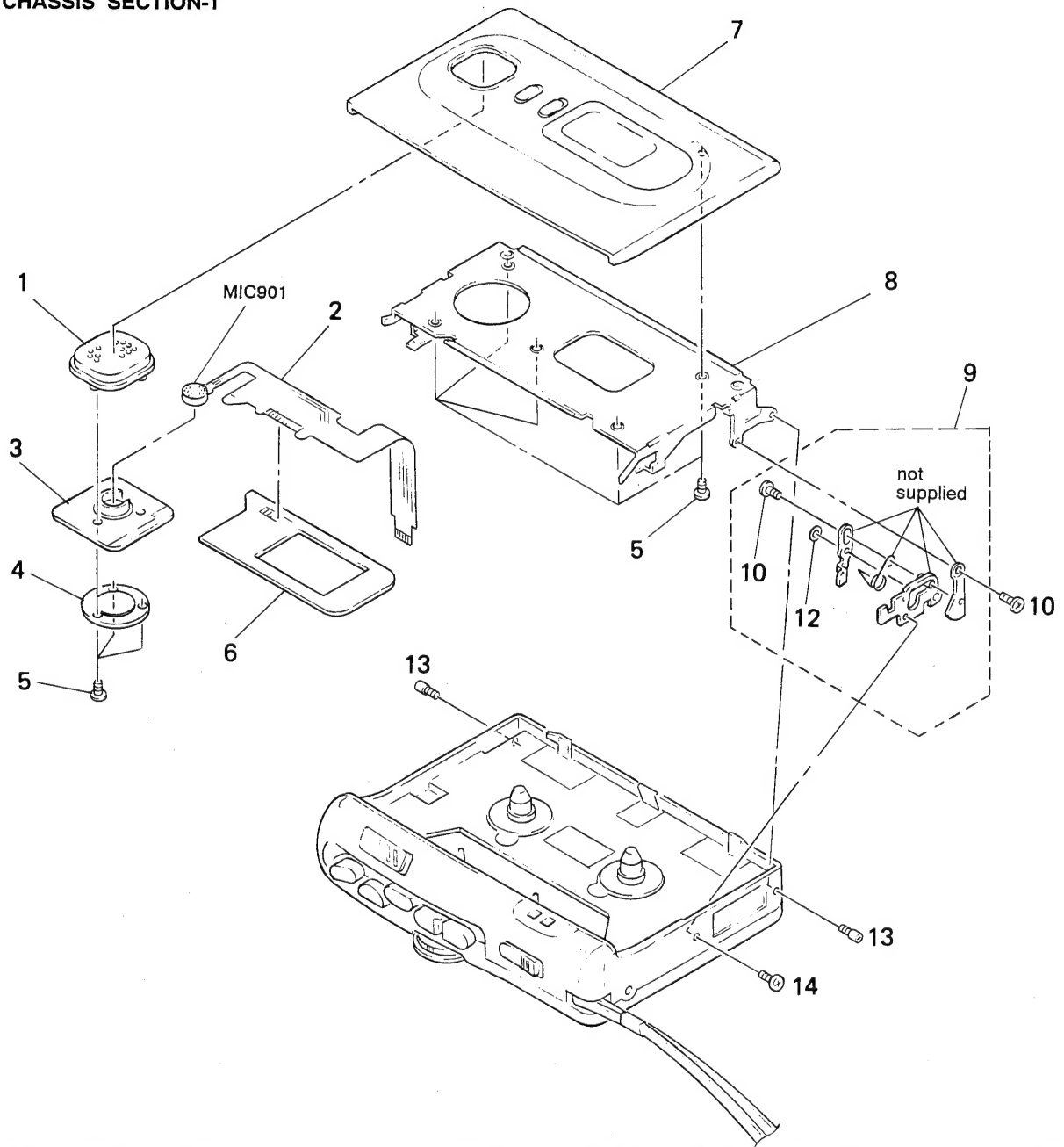
SECTION 7

EXPLODED VIEWS

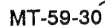
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

(1) CHASSIS SECTION-1

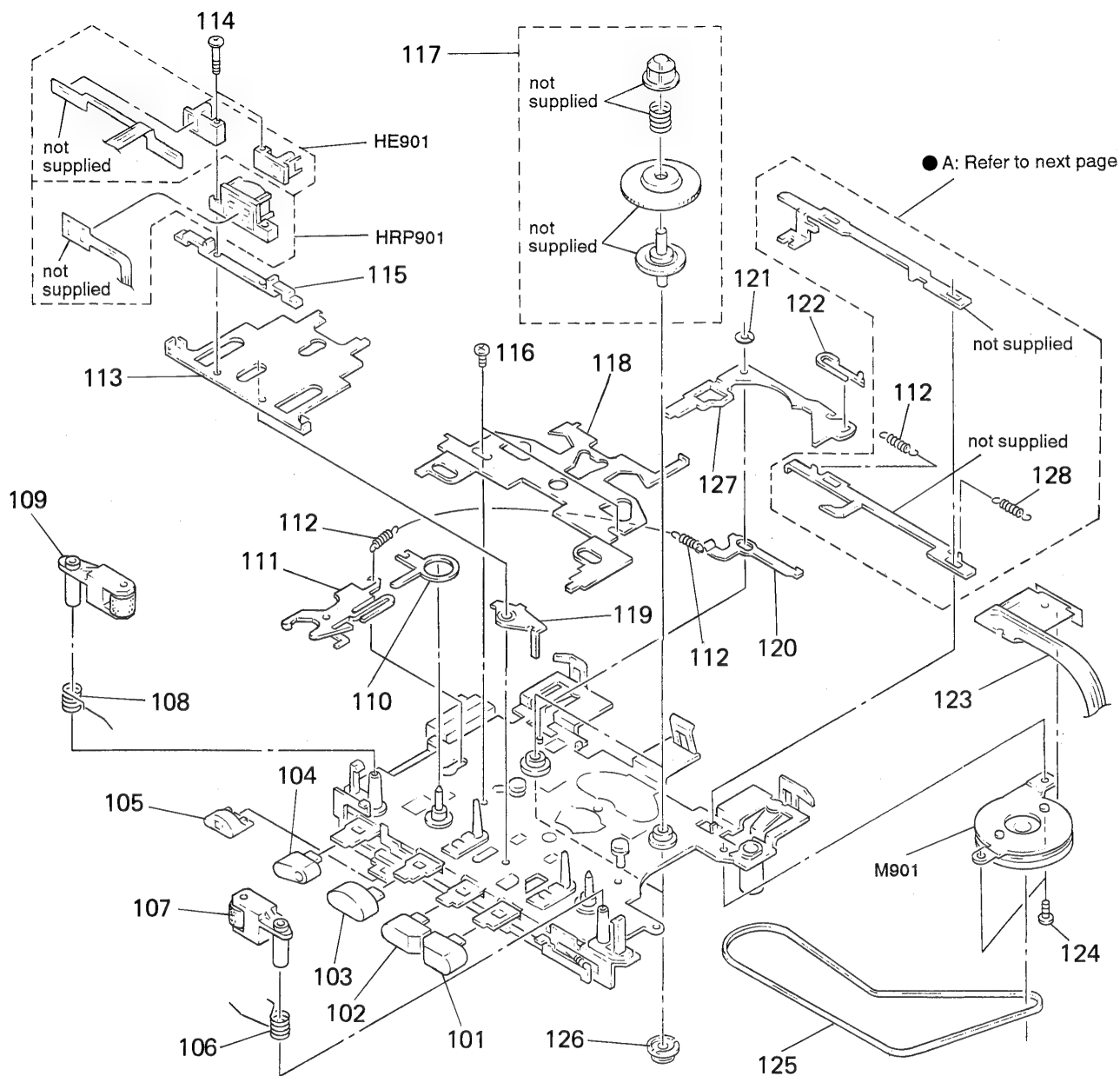


| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|--------------------------|--------|----------|--------------|--------------------------------|--------|
| 1 | X-3370-484-1 | HOLDER ASSY, MICROPHONE | | 8 | 3-925-242-01 | HOLDER, CASSETTE | |
| 2 | 1-657-161-11 | MIC FLEXIBLE BOARD | | * 9 | X-3370-480-1 | TOGGLE ASSY | |
| * 3 | 3-925-243-01 | CUSHION, MICROPHONE | | 10 | 3-311-772-11 | SHAFT (A), STOPPER | |
| * 4 | 3-907-530-01 | RETAINER, MICROPHONE | | 12 | 3-315-384-31 | WASHER, STOPPER | |
| 5 | 3-318-382-91 | SCREW (1.7X2.5), TAPPING | | 13 | 3-315-989-11 | SCREW, ORNAMENTAL | |
| * 6 | 1-657-163-11 | LED BOARD | | 14 | 3-704-245-42 | SCREW (P1.4X3.0) | |
| 7 | X-3370-489-1 | LID ASSY, CASSETTE | | MIC901 | 1-542-124-31 | MICROPHONE, ELECTRET CONDENSER | |



| Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------------------|--------|
| 63 | 3-925-234-01 | FOOT (B), RUBBER | |
| 64 | 3-318-382-31 | SCREW (1.7X3), TAPPING | |
| 65 | 3-328-319-01 | STRAP, HAND | |
| * 66 | 3-926-270-01 | BRACKET (SPK) | |
| 67 | 9-911-815-01 | CUSHION | |
| 68 | 3-925-251-01 | LID, BATTERY CASE | |
| 69 | X-3370-488-1 | CABINET (REAR) ASSY | |
| 70 | 3-318-203-92 | SCREW (B1.7X9), TAPPING | |
| 71 | 3-925-233-01 | FOOT (A), RUBBER | |
| 72 | 3-926-867-01 | PAPER, SHIELD | |
| SP901 | 1-504-897-11 | SPEAKER (3.6 CM) | |
| SP902 | 1-504-897-11 | SPEAKER (3.6 CM) | |

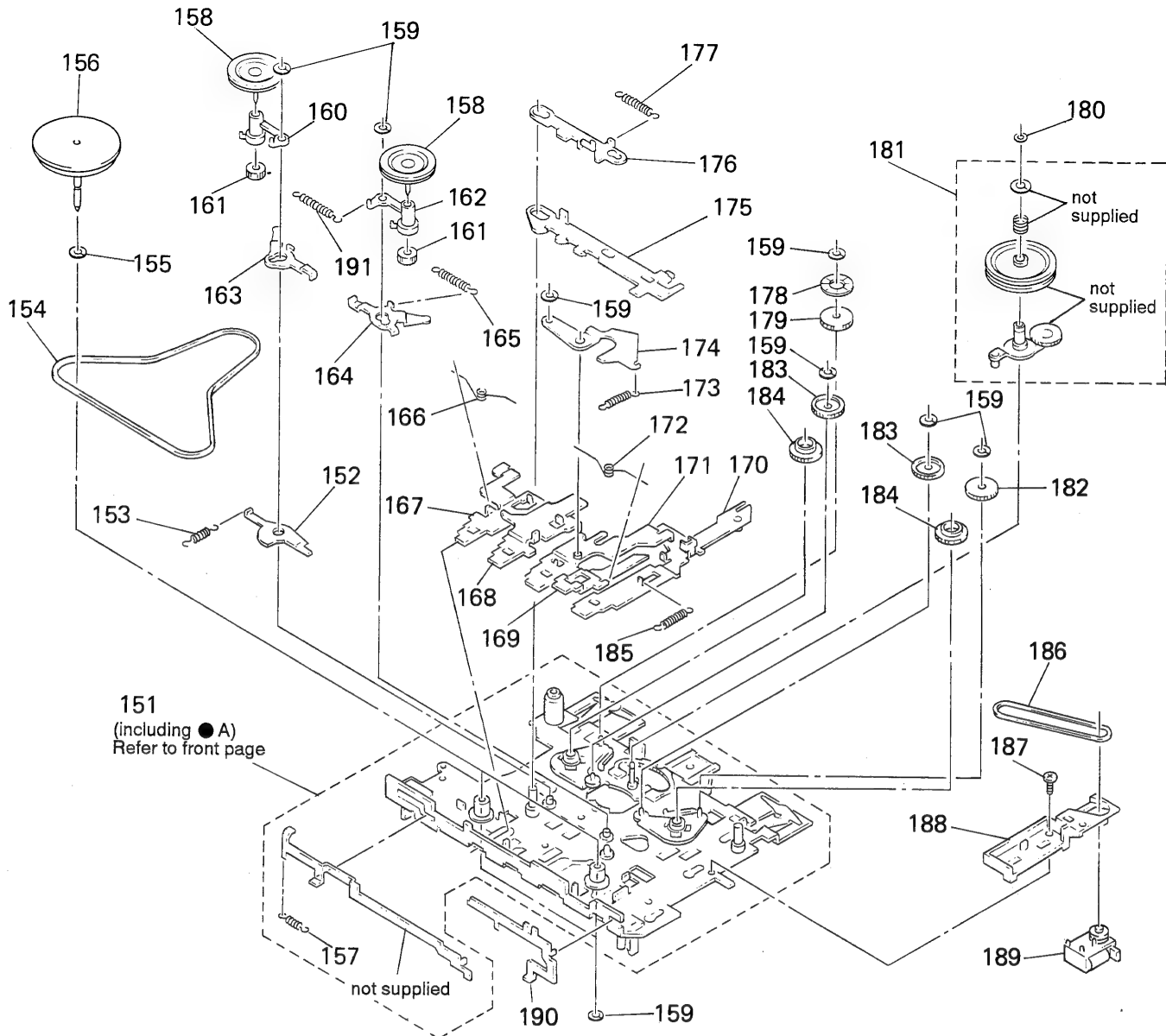
(3) MD SECTION-1
(MT-59-30)



| Ref. No. | Part No. | Description | Remark |
|----------|--------------|---------------------------|--------|
| 101 | 3-925-247-01 | BUTTON, FF | |
| 102 | 3-925-246-01 | BUTTON, REW | |
| 103 | 3-925-245-01 | BUTTON, PLAY | |
| 104 | 3-925-244-01 | BUTTON, REC | |
| 105 | 3-925-248-01 | BUTTON, STOP | |
| 106 | 3-924-596-01 | SPRING (PINCH-N), TORSION | |
| 107 | X-3370-380-1 | ARM (PINCH-R) ASSY | |
| 108 | 3-924-595-01 | SPRING (PINCH-R), TORSION | |
| 109 | X-3370-379-1 | ARM (PINCH-N) ASSY | |
| * 110 | 3-924-572-01 | LEVER (DIR) | |
| * 111 | 3-924-575-01 | LEVER (DIR-M) | |
| 112 | 3-924-601-01 | SPRING TENSION (N) | |
| 113 | X-3370-378-1 | LEVER (HEAD) ASSY | |
| 114 | 3-355-407-01 | SCREW (M1.4), STEP | |
| * 115 | 3-924-570-01 | BRACKET (HEAD) | |

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|----------------------------------|--------|
| 116 | 3-365-630-02 | SCREW (M1.4) | |
| 117 | X-3370-375-1 | TABLE ASSY, REEL | |
| * 118 | 3-924-535-01 | LEVER (FR) | |
| * 119 | 3-924-534-01 | LEVER (C/R) | |
| * 120 | 3-924-538-01 | LEVER (S-OFF) | |
| 121 | 3-321-483-11 | RING, RETAINING | |
| 122 | 3-924-569-01 | PAD (S-OFF) | |
| 123 | 1-657-172-11 | MOTOR FLEXIBLE BOARD | |
| 124 | 3-704-245-42 | SCREW (P1.4X3.0) | |
| 125 | 3-924-594-01 | BELT (MOTOR) | |
| 126 | 3-924-577-01 | PULLEY (COUNTER) | |
| * 127 | 3-924-536-01 | LEVER (OFF) | |
| 128 | 3-924-602-01 | SPRING TENSION (R) | |
| HE901 | 1-500-247-11 | HEAD, MAGNETIC (ERASE) | |
| HRP901 | 1-500-246-11 | HEAD, MAGNETIC (RECORD/PLAYBACK) | |
| M901 | 1-698-581-11 | MOTOR, DC (CAPSTAN/REEL) | |

(4) MD SECTION-2
(MT-59-30)



| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-----------------------|--------|----------|--------------|----------------------------|--------|
| 151 | X-3370-373-1 | CHASSIS ASSY | | * 171 | 3-924-565-01 | LEVER (PLAY) | |
| * 152 | 3-924-537-01 | LEVER (F/R) | | 172 | 3-924-598-01 | SPRING (P/S), TORSION | |
| 153 | 3-924-605-01 | SPRING (FF), TENSION | | 173 | 3-924-604-01 | SPRING (PLAY), TENSION | |
| 154 | 3-924-593-01 | BELT (FLYWHEEL) | | * 174 | 3-924-547-01 | LEVER (PLAY-SUB) | |
| 155 | 3-701-437-51 | WASHER | | * 175 | 3-924-545-01 | LEVER (LOCK) | |
| 156 | X-3370-383-1 | FLYWHEEL ASSY | | * 176 | 3-924-546-01 | LEVER (SW) | |
| 157 | 3-924-602-01 | SPRING TENSION (R) | | 177 | 3-924-606-01 | SPRING (LOCK), TENSION | |
| 158 | 3-924-558-01 | PULLEY (T) | | 178 | 3-924-725-01 | REFLECTOR | |
| 159 | 3-321-483-11 | RING, RETAINING | | 179 | 3-924-579-01 | GEAR (REF) | |
| 160 | 3-924-548-01 | ARM (T-N) | | 180 | 3-348-993-01 | WASHER | |
| 161 | 3-924-557-01 | GEAR (T) | | 181 | X-3370-376-1 | LEVER (CENTER) ASSY | |
| 162 | 3-924-549-01 | ARM (T-R) | | 182 | 3-924-556-01 | GEAR (REW) | |
| * 163 | 3-924-539-01 | LEVER (REW-F) | | 183 | 3-924-562-01 | GEAR (FF) | |
| * 164 | 3-924-540-01 | LEVER (REW-R) | | 184 | 3-924-560-01 | GEAR (REEL) | |
| 165 | 3-924-603-01 | SPRING (F/R), TENSION | | 185 | 3-924-600-01 | SPRING (REC), TENSION | |
| 166 | 3-924-597-01 | SPRING (F/R), TORSION | | 186 | 3-907-946-01 | BELT (COUNTER) | |
| * 167 | 3-924-568-01 | LEVER (FF) | | 187 | 3-704-245-42 | SCREW (P1.4X3.0) | |
| * 168 | 3-924-567-01 | LEVER (REW) | | * 188 | 3-924-664-01 | BRACKET (COUNTER) | |
| * 169 | 3-924-566-01 | LEVER (STOP) | | 189 | 1-548-582-11 | COUNTER, TAPE (SMALL TYPE) | |
| * 170 | X-3370-377-1 | LEVER (REC) ASSY | | * 190 | 3-924-574-01 | LEVER (PAUSE) | |
| | | | | 191 | 3-924-607-01 | SPRING (ARM-T), TENSION | |

SECTION 8

ELECTRICAL PARTS LIST

LED MAIN

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A... uPA...: μ PA...
uPB...: μ PB... uPC...: μ PC... uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------------------------|----------|----------|--------------|---|---------|
| * | 1-657-163-11 | LED BOARD ***** | | C125 | 1-163-038-00 | CERAMIC CHIP 0.1uF | 25V |
| | | < DIODE > | | C126 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 16V |
| D901 | 8-719-049-23 | DIODE BR1101W (REC/BATT ●) | | C127 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 16V |
| D902 | 8-719-049-23 | DIODE BR1101W (BATT ●●) | | C128 | 1-135-201-11 | TANTALUM CHIP 10uF | 20% 4V |
| D903 | 8-719-049-23 | DIODE BR1101W (BATT ●●●) | | C129 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 16V |
| | | < SWITCH > | | C130 | 1-126-246-11 | ELECT CHIP 220uF | 20% 4V |
| S102 | 1-572-922-11 | SWITCH, SLIDE (MIC SENS) | | C131 | 1-104-847-11 | TANTAL. CHIP 22uF | 20% 4V |
| S501 | 1-572-922-11 | SWITCH, SLIDE (VOR) | | C132 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V |
| ***** | | | | C133 | 1-164-346-11 | CERAMIC CHIP 1uF | 16V |
| * | A-3016-724-A | MAIN BOARD, COMPLETE ***** | | C134 | 1-135-201-11 | TANTALUM CHIP 10uF | 20% 4V |
| | | < CAPACITOR > | | C135 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V |
| C101 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V | C136 | 1-163-014-00 | CERAMIC CHIP 0.0027uF | 5% 50V |
| C102 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | C137 | 1-126-607-11 | ELECT CHIP 47uF | 20% 4V |
| C103 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | C138 | 1-164-245-11 | CERAMIC CHIP 0.015uF | 10% 25V |
| C104 | 1-163-077-00 | CERAMIC CHIP 0.1uF | 10% 25V | C139 | 1-162-964-11 | CERAMIC CHIP 0.001uF | 10% 50V |
| C105 | 1-135-201-11 | TANTALUM CHIP 10uF | 20% 4V | C140 | 1-162-964-11 | CERAMIC CHIP 0.001uF | 10% 50V |
| C106 | 1-162-968-11 | CERAMIC CHIP 0.0047uF | 10% 50V | C141 | 1-162-964-11 | CERAMIC CHIP 0.001uF | 10% 50V |
| C107 | 1-107-493-11 | TANTAL. CHIP 47uF | 20% 2.5V | C142 | 1-162-964-11 | CERAMIC CHIP 0.001uF | 10% 50V |
| C108 | 1-135-201-11 | TANTALUM CHIP 10uF | 20% 4V | C143 | 1-162-964-11 | CERAMIC CHIP 0.001uF | 10% 50V |
| C109 | 1-164-227-11 | CERAMIC CHIP 0.022uF | 10% 25V | C144 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C110 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 16V | C501 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 16V |
| C111 | 1-162-968-11 | CERAMIC CHIP 0.0047uF | 10% 50V | C502 | 1-162-964-11 | CERAMIC CHIP 0.001uF | 10% 50V |
| C112 | 1-107-493-11 | TANTAL. CHIP 47uF | 20% 2.5V | C503 | 1-104-847-11 | TANTAL. CHIP 22uF | 20% 4V |
| C113 | 1-104-847-11 | TANTAL. CHIP 22uF | 20% 4V | C504 | 1-164-227-11 | CERAMIC CHIP 0.022uF | 10% 25V |
| C114 | 1-104-847-11 | TANTAL. CHIP 22uF | 20% 4V | C602 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C115 | 1-164-346-11 | CERAMIC CHIP 1uF | 16V | C603 | 1-164-489-11 | CERAMIC CHIP 0.22uF | 10% 16V |
| C116 | 1-104-847-11 | TANTAL. CHIP 22uF | 20% 4V | C604 | 1-135-073-00 | TANTALUM CHIP 0.33uF | 10% 35V |
| C117 | 1-162-966-11 | CERAMIC CHIP 0.0022uF | 10% 50V | C605 | 1-107-823-11 | CERAMIC CHIP 0.47uF | 10% 16V |
| C118 | 1-164-005-11 | CERAMIC CHIP 0.47uF | 25V | C701 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V |
| C119 | 1-162-964-11 | CERAMIC CHIP 0.001uF | 10% 50V | C702 | 1-135-145-11 | TANTALUM CHIP 0.47uF | 20% 35V |
| C120 | 1-135-201-11 | TANTALUM CHIP 10uF | 20% 4V | C703 | 1-124-779-00 | ELECT CHIP 10uF | 20% 16V |
| C122 | 1-126-207-11 | ELECT CHIP 33uF | 20% 4V | C704 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V |
| C123 | 1-135-070-00 | TANTALUM CHIP 0.1uF | 10% 35V | C705 | 1-135-091-00 | TANTAL. CHIP 1uF | 20% 16V |
| C124 | 1-135-201-11 | TANTALUM CHIP 10uF | 20% 4V | C706 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 16V |
| | | | | C708 | 1-164-360-11 | CERAMIC CHIP 0.1uF | 16V |
| | | | | | | < CONNECTOR > | |
| | | | | CN101 | 1-580-372-41 | JACK, DC (POLARITY UNIFIED TYPE) (DC IN 3V) | |

MAIN

| Ref. No. | Part No. | Description | Remark |
|---------------------|--------------|-----------------------------|--------|
| < DIODE > | | | |
| D701 | 8-719-988-62 | DIODE 1SS355 | |
| < IC > | | | |
| IC101 | 8-752-036-38 | IC CXA1347N | |
| IC501 | 8-759-701-51 | IC NJM2072M | |
| IC601 | 8-759-275-47 | IC LB1674V-TLM | |
| IC701 | 8-759-344-30 | IC TB2004FN-016-ER | |
| IC702 | 8-759-190-80 | IC S-81211PG-PA-T1 | |
| < JACK > | | | |
| J101 | 1-563-319-21 | JACK (MIC (PLUG IN POWER)) | |
| J102 | 1-563-319-21 | JACK (EAR) | |
| < JUMPER RESISTOR > | | | |
| JC1 | 1-216-864-11 | METAL CHIP 0 5% 1/16W | |
| < PHOTO REFLECTOR > | | | |
| PH701 | 8-749-925-05 | REFLECTOR NJL5183KA-F20-TE1 | |
| < TRANSISTOR > | | | |
| Q101 | 8-729-230-63 | TRANSISTOR 2SC4116-YG | |
| Q102 | 8-729-402-96 | TRANSISTOR UN5114 | |
| Q103 | 8-729-230-63 | TRANSISTOR 2SC4116-YG | |
| Q501 | 8-729-230-63 | TRANSISTOR 2SC4116-YG | |
| Q601 | 8-729-402-96 | TRANSISTOR UN5114 | |
| Q602 | 8-729-402-93 | TRANSISTOR UN5214-TX | |
| Q603 | 8-729-823-86 | TRANSISTOR 2SA1745 | |
| Q604 | 8-729-823-86 | TRANSISTOR 2SA1745 | |
| Q701 | 8-729-230-63 | TRANSISTOR 2SC4116-YG | |
| Q702 | 8-729-402-93 | TRANSISTOR UN5214-TX | |
| Q703 | 8-729-402-93 | TRANSISTOR UN5214-TX | |
| Q704 | 8-729-402-96 | TRANSISTOR UN5114 | |
| Q705 | 8-729-402-96 | TRANSISTOR UN5114 | |
| Q706 | 8-729-420-24 | TRANSISTOR 2SB1218A-QRS | |
| Q707 | 8-729-402-93 | TRANSISTOR UN5214-TX | |
| Q708 | 8-729-230-63 | TRANSISTOR 2SC4116-YG | |
| Q709 | 8-729-230-63 | TRANSISTOR 2SC4116-YG | |
| Q710 | 8-729-402-96 | TRANSISTOR UN5114 | |
| < RESISTOR > | | | |
| R101 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R102 | 1-216-830-11 | METAL CHIP 5.6K 5% 1/16W | |
| R103 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R104 | 1-216-815-11 | METAL CHIP 330 5% 1/16W | |
| R105 | 1-216-817-11 | METAL CHIP 470 5% 1/16W | |
| R106 | 1-216-851-11 | METAL CHIP 330K 5% 1/16W | |

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|--------------------------|--------|
| R107 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R108 | 1-216-820-11 | METAL CHIP 820 5% 1/16W | |
| R109 | 1-216-831-11 | METAL CHIP 6.8K 5% 1/16W | |
| R110 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R111 | 1-216-815-11 | METAL CHIP 330 5% 1/16W | |
| R112 | 1-216-813-11 | METAL CHIP 220 5% 1/16W | |
| R113 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R114 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R115 | 1-216-828-11 | METAL CHIP 3.9K 5% 1/16W | |
| R116 | 1-216-801-11 | METAL CHIP 22 5% 1/16W | |
| R117 | 1-216-828-11 | METAL CHIP 3.9K 5% 1/16W | |
| R118 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R119 | 1-216-792-11 | METAL GLAZE 3.9 5% 1/16W | |
| R120 | 1-216-792-11 | METAL GLAZE 3.9 5% 1/16W | |
| R121 | 1-216-835-11 | METAL CHIP 15K 5% 1/16W | |
| R122 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R123 | 1-216-814-11 | METAL CHIP 270 5% 1/16W | |
| R124 | 1-216-822-11 | METAL CHIP 1.2K 5% 1/16W | |
| R125 | 1-216-828-11 | METAL CHIP 3.9K 5% 1/16W | |
| R126 | 1-216-798-11 | METAL GLAZE 12 5% 1/16W | |
| R127 | 1-216-827-11 | METAL CHIP 3.3K 5% 1/16W | |
| R128 | 1-216-814-11 | METAL CHIP 270 5% 1/16W | |
| R129 | 1-216-811-11 | METAL CHIP 150 5% 1/16W | |
| R130 | 1-216-819-11 | METAL CHIP 680 5% 1/16W | |
| R131 | 1-216-814-11 | METAL CHIP 270 5% 1/16W | |
| R132 | 1-216-807-11 | METAL CHIP 68 5% 1/16W | |
| R133 | 1-216-829-11 | METAL CHIP 4.7K 5% 1/16W | |
| R134 | 1-216-828-11 | METAL CHIP 3.9K 5% 1/16W | |
| R501 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R502 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R503 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R504 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R505 | 1-216-828-11 | METAL CHIP 3.9K 5% 1/16W | |
| R601 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R602 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R603 | 1-216-841-11 | METAL CHIP 47K 5% 1/16W | |
| R604 | 1-216-813-11 | METAL CHIP 220 5% 1/16W | |
| R605 | 1-216-831-11 | METAL CHIP 6.8K 5% 1/16W | |
| R608 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R609 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R701 | 1-218-295-11 | METAL GLAZE 43K 5% 1/16W | |
| R702 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R703 | 1-216-841-11 | METAL CHIP 47K 5% 1/16W | |
| R704 | 1-216-810-11 | METAL CHIP 120 5% 1/16W | |
| R705 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R706 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R707 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R708 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R709 | 1-216-841-11 | METAL CHIP 47K 5% 1/16W | |

| Ref. No. | Part No. | Description | Remark |
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| R710 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
|------|--------------|-------------------------|--|

< VARIABLE RESISTOR >

| | | | |
|-------|--------------|--------------------------------------|--|
| RV101 | 1-223-510-11 | RES, VAR, CARBON 10K/10K (VOL) | |
| RV601 | 1-223-586-11 | RES, ADJ, CARBON 10K | |
| RV602 | 1-223-931-11 | RES, VAR, CARBON 10K (SPEED CONTROL) | |

< SWITCH >

| | | | |
|------|--------------|-------------------------------|--|
| S101 | 1-762-081-11 | SWITCH, SLIDE (PLAY/REC) | |
| S103 | 1-762-081-11 | SWITCH, SLIDE (FWD/REV) | |
| S104 | 1-572-288-11 | SWITCH, PUSH (POWER) | |
| S701 | 1-572-922-11 | SWITCH, SLIDE (PAUSE) | |
| S702 | 1-572-688-11 | SWITCH, PUSH (FWD FIELD BACK) | |

| | | | |
|------|--------------|-----------------------|--|
| S703 | 1-572-288-11 | SWITCH, PUSH (DIR) | |
| S704 | 1-572-288-11 | SWITCH, PUSH (FF/REW) | |

< TRANSFORMER >

| | | | |
|------|--------------|-------------------------------|--|
| T101 | 1-433-286-11 | TRANSFORMER, BIAS OSCILLATION | |
| T701 | 1-450-667-11 | TRANSFORMER, DC-DC CONVERTER | |

< THERMISTOR >

| | | | |
|--------|--------------|----------------------|--|
| THP601 | 1-810-911-21 | THERMISTOR, POSITIVE | |
|--------|--------------|----------------------|--|

< CONNECTOR >

| | | | |
|------|--------------|--------------------------|--|
| W101 | 1-764-768-11 | CONNECTOR, FPC (ZIF) 12P | |
|------|--------------|--------------------------|--|

MISCELLANEOUS

| | | | |
|--------|--------------|----------------------------------|--|
| 2 | 1-657-161-11 | MIC FLEXIBLE BOARD | |
| 123 | 1-657-172-11 | MOTOR FLEXIBLE BOARD | |
| 189 | 1-548-582-11 | COUNTER, TAPE (SMALL TYPE) | |
| HE901 | 1-500-247-11 | HEAD, MAGNETIC (ERASE) | |
| HRP901 | 1-500-246-11 | HEAD, MAGNETIC (RECORD/PLAYBACK) | |

| | | | |
|--------|--------------|--------------------------------|--|
| M901 | 1-698-581-11 | MOTOR, DC (CAPSTAN/REEL) | |
| MIC901 | 1-542-124-31 | MICROPHONE, ELECTRET CONDENSER | |
| SP901 | 1-504-897-11 | SPEAKER (3.6 CM) | |
| SP902 | 1-504-897-11 | SPEAKER (3.6 CM) | |

ACCESSORIES & PACKING MATERIALS

| | |
|--------------|---|
| 3-800-053-11 | MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (Canadian, AEP, UK, E) |
| 3-800-053-21 | MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, UK) |
| 3-800-053-31 | MANUAL, INSTRUCTION (ENGLISH) (US) |
| 3-800-053-41 | MANUAL, INSTRUCTION (KOREAN) (E) |

| Ref. No. | Part No. | Description | Remark |
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|--|--------------|------------------|--|
| | 3-925-233-01 | FOOT (A), RUBBER | |
|--|--------------|------------------|--|

| | | | |
|---|--------------|--|--|
| * | 3-925-593-01 | INDIVIDUAL CARTON (Canadian, AEP, UK, E) | |
|---|--------------|--|--|
